

Massachusetts Electric Company
Docket No. D.T.E. 03-130
Responses to the Department's First Set of Information Requests

Information Request DTE-

Request

Please refer to Exh. BVH-1. Please identify and describe the "Mill Street Junction" location at the easterly interconnection of the proposed Supply Line; include a description of the existing configuration at the location and proposed changes.

Response:

The Mill Street Junction is located approximately 1.3 miles in an east-south-easterly direction from MECo's King Street #18 Substation in the Town of Georgetown, Massachusetts. The area is located on an abandoned railroad right-of-way. Three electric subtransmission lines (2367, 2394 and 2373) pass through this location. A map showing the Mill Street Junction in relation to King Street Substation is attached as Attachments A and B. See also Attachment C.

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Information Request DTE-2

Request:

Please refer to Exhs. PBE-4 and PBE-5. Please provide similar figures representing a ROW cross section along the 0.3 miles closest to the King Street substation.

Response:

See Attachment A.

Prepared by or under the supervision of: Paul E. Burgess, P.E.

Massachusetts Electric Company
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Information Request DTE-3

Request:

Please refer to Exh. BVH-1, Figure 1; and Exh. PEB-1. Please provide a table showing the termini of each of the existing lines that is shown on either or both of the indicated figures.

Response:

The table below shows termini of each existing 23 kV subtransmission line leaving King Street #18 Substation.

<u>LINE #</u>	<u>FROM</u>	<u>TO</u>
2329	King Street #18 Substation	Water Street #31 Substation
2367	King Street #18 Substation	East Boxford #33 Substation
		Newburyport #36 Substation
2373	King Street #18 Substation	Ipswich Municipal Substation
		Newburyport #36 Substation
2377	King Street #18 Substation	Beach Road #7 Substation
2394	King Street #18 Substation	Ipswich Municipal Substation
2396	King Street #18 Substation	Amesbury #5 Substation
		Bradford Terminal Structure

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Information Request DTE-4

Request:

Please refer to the Hayduk testimony at 3. Please provide a copy of the 1997 study referenced on page 16.

Response:

See Attachment A

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

Massachusetts Electric Company
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Information Request DTE-5

Request:

Please provide 3- to 5-year historical trend data and 3- to 5-year forecast peak load data for the area served by the King Street Substation, and for the sub-areas served by the supply lines running through Mill Street Junction towards Newburyport and Ipswich.

Response:

Attached is the King Street Area load forecast that was used in the recent study. See Attachment A. Load forecasts for MECo. loads were derived from the Merrimack Valley Power Supply Area Forecast. See Attachment B. Load forecasts for municipal loads were derived from projections that were submitted by the individual municipal light companies to NEP. See Attachment C.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-6

Request:

Please describe the types of emergencies and other contingencies that could reasonably be anticipated that would result from overloading equipment. Please describe the consequences of King Street substation area loads exceeding equipment capabilities.

Response:

Thermal overloads of underground cables will cause accelerated loss of life, ultimately resulting in cable failure. Thermal overload of overhead lines could anneal (mechanically weaken) the conductor; cause the conductor to sag into other objects, or completely burn-down.

A thermal overload that caused the failure of any single line could result in a momentary outage to customers served by the failed line while customers are automatically transferred to the backup line. In cases where automatic transfer does not exist, customers would remain out of service until they are manually transferred.

A thermal overload that occurs on line while it is providing backup supply to a faulted line could cause both preferred and backup supply to fail. In this event, customers served by these lines would experience an extended outage (up to 24 hours) while the repairs are made. A list of thermal overloads with their impact is shown in Attachment A.

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Information Request DTE-7

Request:

Please refer to Exh. BVH-1, at 1 Please indicate the locations that had thermal overload during peak loading levels in 2003.

Response:

Temporary measures were exercised in 2003 to avoid normal thermal overloads at two locations. Locations where we projected (and avoided) these normal thermal overloads are listed as the first two items in DTE-6, Attachment A. Work to install a third underground cable to permanently address the normal thermal overload of the 2373 underground cable into Newburyport #36 substation is progressing. Target complete date for this work is summer 2004. The subtransmission system was reconfigured to eliminate the normal thermal overload of the 2356 cable into Water Street #31 substation has been recently completed.

Temporary measures were exercised in 2003 to avoid projected contingency thermal overloads on four lines as described in DTE-6, Attachment A.

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Information Request DTE-8

Request:

Please refer to the Hayduk testimony at 3, 4. With reference to the three listed problems experienced in 2003:

- a. Please indicate the areas at the extremities that experienced low voltage during peak load, under normal conditions in 2003; and
- b. Please state whether the "contingency" overloads came to pass.

Response:

- a) The areas that experienced low voltage during peak, normal system conditions were located at the extremities of the subtransmission system. Specifically, these were Amesbury #5, Beach Road #7, Ipswich and Topsfield #26 Substations.
- b) Contingency thermal overloads, as described in the Hayduk testimony, did not occur during 2003.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-9

Request:

Please refer to Exh. BVH-1, which states that transmission problems were relieved by reconfiguring supply, blocking certain transfers, and using diesel generation. Please indicate: (a) whether these measures can be taken permanently; (b) whether these measures would adequately address transmission problems for the foreseeable future; and (c) whether there are downsides to using these measures.

Response:

- a) It is not advisable to permanently utilize the interim operating practices as described in Exh. BVH-1. Reconfiguring subtransmission ("supply") or blocking automatic substation transfers reduces the reliability of subtransmission system by exposing customers to permanent outages for loss of a single subtransmission line. It is for this reason that we choose to minimize exposure to permanent outages by only enacting these operating practices above prescribed load levels. Ipswich is under no obligation to run generation for the purposes of supporting the subtransmission system. Additionally, other mechanical, environmental, and/or economical factors may render it unavailable, therefore we do not consider this a viable solution.
- b) Although these measures temporarily address thermal overload and voltage performance issues, they lack the robustness to provide a long-term solution.
- c) The downsides as described in the first section are mainly related to a degradation of reliability.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-10

Request:

Would the Company state that the proposed Supply Line is needed to maintain a reliable supply of electricity to consumers in a particular area? If so, please characterize that area.

Response:

The proposed Supply Line would *improve* the reliability to customers located in Newbury, Newburyport, Georgetown, Groveland, and Ipswich by reducing the exposure to outages occurring when the 2373 line trips and load is transferred to the backup subtransmission line. These outages may be either momentary or permanent in nature, depending on whether the substation has automatic transfer or not.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-11

Request:

Please refer to Exh. BVH-1, at 2. Please identify service areas that could develop voltage instability during contingency on the 2367, 2373, 2377, or 2394 lines.

Response:

Voltage instability may occur at the extremities of the subtransmission system during peak load periods when a subtransmission line trips. Customers in the towns of Merrimac, Amesbury, Salisbury may experience voltage stability problems in the event that the 2396 line trips during heavy loading periods. Customers in the towns of Newburyport, Newbury, Ipswich, Rowley, Georgetown, Boxford and Topsfield may experience voltage stability problems in the event that the 2367, 2373 or 2396 line trips during heavy loading periods.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-12

Request:

Does the Company anticipate needing to bring 115 kV power closer to load centers in the area of Amesbury, Newburyport, or Ipswich in the foreseeable future? Is the work proposed as Plan #1 compatible with likely future upgrades?

Response:

The Company anticipates bringing a 115kV source close to load centers in the near future, and the proposed location is in the West Amesbury area. The proposed Plan #1 is in line with likely future upgrades.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-13

Request:

How will the proposed Project change supply capability and equipment loadings in the area?

Response:

The proposed Project will reduce normal and contingency peak loading on the 2367, 2373 and 2394 lines. It will eliminate projected contingency thermal overloads at a number of points on these lines (the sections being reconductored under the plan). Additionally, both normal and contingency voltage performance will be much improved due to the additional reactive support provided by new capacitor banks under the plan.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-14

Request:

Please discuss whether and to what extent distributed generation and/or targeted DSM might alleviate current and forecasted peak loading in the area served by the King Street substation. Has targeted DSM been implemented there? If so, please report on the results.

Response:

The King Street Substation supplies the Groveland, Georgetown, Rowley and Ipswich Municipal Light Departments. In addition, it supplies the following communities served by MECo:

Amesbury
Haverhill
Newburyport
West Newbury

M.G.L.A. Ch. 25, Sec. 19, which governs the funding and implementation of energy efficiency programs, applies to distribution companies such as MECo, but not to municipal light departments. Accordingly, MECo's opportunities for DSM in the communities served by the King Street Substation are severely limited.

Even so, there have been 469 DSM projects over the past 5 years in the Massachusetts Electric Service territory areas supplied by the King St Substation. These projects have reduced peak demand by a cumulative 3.06 MW. The estimated total energy reduction for these measures is 12 million kWh per year. Reduction ranges from 100 watts to 300 kW of reduction per location. In addition, one MECo customer has enrolled in the ISO load shedding program with a contracted load shed of 100 kW. One other MECo customer has never officially enrolled in the load shedding program, but through testing has determined that it can shed 300 kW of load.

Prepared by or under the supervision of: Andres J. Molina, P.E.

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Information Request DTE-15

Request:

Please indicate and provide, as available, standards with which construction, testing, and maintenance of the Supply Line will be in accordance.

Response:

The new Supply Line will be constructed in accordance with the National Grid's Construction Standards for Distribution Supply; CS.1450, CS 1451, CS 1452, and CS 1456, CS 1457. See DTE-15, Attachment A.

Following completion of construction, each structure is inspected for conformance with the Construction Standards. Testing consists of a continuity check of the conductors, and a phase check to verify that the new phase conductor are compatible for interconnection with the phases of the existing electrical system.

Following severe ice and wind storms, the new Supply Line will be visually inspected by helicopter for any damage, and repaired, if required. Routine maintenance consists of a pole-by-pole inspection on a 5- year cycle, and repaired, as required.

Prepared by or under the supervision of: Paul E. Burgess, P.E.

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Information Request DTE-16

Request:

Please refer to Exhibit BVH-1 at pages 1 and 3 and the Hayduk Testimony at 6. Please clarify what elements should be considered to be included in Plan #2.

- a. Under Plan #2, the Company describes a new switching station. Would it be located in Rowley? If line 2319 is extended to Ipswich, is a new switching station still required?
- b. Would Plan #2 include a new 23 kV getaway line from King Street substation to the 2396 bifurcation, like Plan #1?
- c. Would Plan #2 exclude the various line upgrades, as stated in the Hayduk Testimony at 6, or include them, as stated in BVH-1?
- d. Would Plan #2 include replacement of pole top capacitors, like Plan #1?

Response:

- a) Under Plan #2, for purposes of analysis the new switching station was to be located in Rowley. If the 2319 were extended to Ipswich, the switching station would not be required.
- b) Yes. Plan #2 would include a new 23 kV getaway from King Street #18 Substation to the 2396 bifurcation.
- c) Plan #2 would negate the need for upgrading the various lines, however the increased time required for implementation would require that the lines upgrades be completed to address the immediate need.
- d) Plan #2 would include replacement of four pole top capacitor banks.

Prepared by or under the supervision of: Brian V. Hayduk, P.E.

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Information Request DTE-17

Request:

Are the relative disadvantages of Plan #2, as described in Exhibit BVH-1, the reasons why Plan #1 was selected instead of Plan #2? Are the two plans equally effective with respect to providing voltage support and thermal protection into the future? Please explain.

Response:

Plan #2 was not selected as the preferred plan for three reasons: cost, implementation time/complexity, and the possibility of being out-of-line with long-term plans for the area. As stated in the answer to DTE-12 (above), the Company realizes that significant investment in the 23 kV system is not prudent at this time. It plans to complete a long-term, larger-area study to address the possible need for transmission at a number of locations. By broadening the study area, the goal would be to develop a single, integrated solution that benefits the entire area.

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Information Request DTE-18

Request:

Please describe differences in environmental impacts between Plan #1 and Plan #2.

Response:

Plan #1 includes the new 2319 along the existing King St. to Mill St. right-of-way. Additionally, there are a number of support elements such as reconductoring existing lines (usually done under the Wetlands Protection Act's maintenance exemption) and adding a capacitor bank in Ipswich which has already been permitted under a Request for Determination of Applicability (RDA) before the Conservation Commission.

Plan # 2 includes these elements plus an extension of the 2319 line to a new switching station in Rowley (estimated to be an additional 3.5 miles from the Mill St. Junction). The switching substation would be inside a fence line approximately 80 ft. by 80 ft. The combination of new line and new substation would involve incrementally more environmental permitting than the current project. The extension of the 2319 line to the new switching station would result in a third 23 kV line along that existing 80-ft. wide right-of-way. Since Massachusetts Electric does not own a site in Rowley, the new station would require purchase of several acres and introduce a new substation into the area and its attendant permitting issues.

The environmental comparison also must consider a much more lengthy public outreach and permitting process for Plan # 2.

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Information Request DTE-19

Request:

What is the maximum sag of the proposed Supply Line? What is the minimum clearance (over rough ground; over roads; over tree branches)? What is the maximum permissible distance between poles?

- b. Please refer to the Burgess Testimony at 4. Can insertion of three poles into wetlands be avoided by moving pole locations, including, perhaps interposing an additional pole?

Response:

- a. Maximum sag based on a 235 foot ruling span at 284 degrees F, maximum operating temperature: 9.4 feet. Minimum clearance over rough ground: 22 feet. Minimum clearance over roads: 22 feet. Clearance to the distribution lines located along the street normally dictates a greater clearance. Minimum clearance over tree branches: 10 feet minimum plus an allowance for tree clearing equipment. The maximum permissible distance between poles: 280 feet, assuming flat terrain, 45 foot Class 2 poles, and a 235 foot ruling span.
- b. Pole #8 cannot be relocated because it is an angle structure. Because Pole #14 is located in an area between two hills, moving Pole #14 towards #13, ten to twenty feet is possible, but will not place the pole outside of the wet area, because the area inundates seasonally. The addition of another pole does not improve the situation. Pole #35 is located between two wet areas. Adjusting the pole will not improve the situation.

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Information Request DTE-20

Request:

Please provide transcripts of any meetings of the Georgetown or Groveland Planning Boards or of other town permitting or regulatory entities concerning the proposed Supply Line. If transcripts are unavailable, please provide the minutes of such meetings.

Response:

MECo has requested minutes and transcripts of the Groveland and Georgetown Conservation Commissions and will provide them to the Department if and when they arrive.

Prepared by or under the supervision of: F. Paul Richards

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Information Request DTE-21

Request:

Please forward a copy of the order of conditions from the Groveland Conservation Commission and a copy of the order of conditions from the Georgetown Conservation Commission.

Response:

The Groveland Conservation Commission closed its public hearing on the Notice of Intent on January 28, 2004. The Groveland Conservation Commission is required to issue an Order of Conditions within 21 days of closing the hearing. Once the Order of Conditions is issued, MECo will forward a copy to the Department.

The Georgetown Conservation Commission has not closed its public hearing. The next scheduled hearing on the project is March 18, 2004. Once the Order of Conditions is issued, MECo will forward a copy to the Department.

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Information Request DTE-22

Request:

Please provide copies of any information regarding potential Project impacts on rare species or rare species habitat, other than information previously filed with the Department in this hearing.

Response:

The attachment includes

- (1) a cover letter from Mr. F. Paul Richards on behalf of MECo to Dr. Thomas French at Natural Heritage,
- (2) Natural Heritage's initial October 31, 2003 findings,
- (3) the December 30, 2003 Hyla Ecological Services report (which has since been modified to move poles),
- (4) Mr. Richards' commentary report on construction and requested findings, and
- (5) a project location map.

Prepared by or under the supervision of: F. Paul Richards

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Information Request DTE-23

Request:

Please provide the distance from the proposed Supply Line to the nearest homes or businesses along the 80-foot ROW, and the nearest homes or businesses along the 0.3 miles between King Street substation and the start of the 80-foot ROW.

Response:

The distance from the proposed Supply Line to the nearest homes or businesses along the 80-foot right-of-way is 88 feet. Along the 0.3 miles between the King Street #18 Substation and the start of the 80-foot right-of-way, the closest residence is 330 feet.

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Information Request DTE-24

Request:

Please refer to the Burgess testimony at 3, 4.

- a. What is the width of tree clearing that will be required for the approximately 2700 feet of ROW that has only been partially cleared?
- b. How many trees will be cut down and how many trees will be topped along the route?
- c. Please show on a map all areas of tree clearing, including the 2700-foot section and the three additional areas of clearing.

Response:

- a. No additional clearing is required for the right-of-way.
- b. Approximately 24 trees will be removed and approximately 125 will be side-trimmed. No trees will be topped.
- c. See Attachment A.

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Information Request DTE-25

Request:

Please describe the visual impact of the new Supply Line, including the number of homes from which the Supply Line will be visible and the visual prominence of the Supply Line from those homes.

Response:

The existing 2373 line is visible from the homes of four abutters in Groveland and four abutters in Georgetown.

The new Supply Line will be visible from the same homes. Visual impact was taken into consideration when designing the proposed line: The new poles will be installed, wherever possible, beside the existing ones and will be of similar height.

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Information Request DTE-26

Request:

Please describe the Company's current plans to restore or install screening along the edge of the ROW and at road crossings.

/

Response:

The Company's arborist, Guy Shepard, and the firm W.D. Warner Architects & Planners are working with three abutters at the Evergreen Lane crossing and two abutters at the Pond Street crossing to develop landscaping plans for the sides of their property facing the right-of-way. See Attachment A, letter from Sean Driscoll, to Elaine & Anthony Poretta, dated February 3, 2004, and Attachment B, e-mail from William D. Warren to Guy Shepard dated February 17, 2004.

The Company has also directed W.D. Warner to develop a generic planting plan for implementation, when possible, along the width of the right-of-way, at places the right-of-way crosses public ways. The plantings will consist of low-growth and flowering bushes to distract attention from the power lines.

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Information Request DTE-27

Request:

Please provide the expected maximum EMF levels at the nearest residence, with and without operation of the new Supply Line. How do modeled EMF levels from the Company's lines compare to EMF levels from local distribution lines? Please indicate whether the Company can minimize magnetic field levels from two parallel circuits on the 80-foot ROW by selecting a particular arrangement of phased conductors.

Response:

The Company produced a computer simulation of EMF fields along the Groveland to Georgetown right-of-way for the existing 2373 circuit under peak Summer 2003 loading, and for both the 2373 & the new Supply Line circuits under expected peak Summer 2004 loading. The residence closest to the edge of the right-of-way is #3 Evergreen Lane, at approximately 50'. Please refer to Attachment A.

The Company does not have the information required to produce an EMF model for distribution lines in either Groveland or Georgetown since those lines are owned by Municipal Light Departments. However, the values obtained in this simulation are comparable to those calculated for typical distribution facilities.

The phasing on the new Supply Line can be configured to minimize magnetic field levels for two 4' triangular configuration 23 kV circuits, as shown in Attachment A.

The maximum EMF value in the right-of-way is reduced by approximately 70% from Summer 2003 levels.

Prepared by or under the supervision of: Andres J. Molina, P.E.

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Information Request DTE-28

Request:

Please describe the potential effect of the new line on radio communications. How would potential effects of the company's lines on radio communications differ with and without operation of the new Supply Line?

Response:

MECo is proposing to construct a 23 kV supply line from the King Street Substation to the Mill Street junction in an existing right of way. Located in this right of way is an existing 23 kV line (no. 2373). MECo has no record of communications interference in the vicinity of this right of way due to the existing line. A new power line is even less likely to cause any communications interference, because it would not typically have loose or deteriorated connections. However, should either the existing line or the proposed new line cause interference with radio communications in the future, MECo would be responsible for investigating and correcting the situation in accordance with FCC regulations. Hence, the new line should have no effect on radio communications. Likewise, the potential effects of the company's lines on radio communications should not differ with and without operation of the new Supply Line.

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Information Request DTE-29

Request:

Does the proposed Supply Line require the use or storage of materials that may be considered hazardous for environmental or safety reasons? If so, what materials, and how will hazards be minimized?

Response:

The Supply Line Project will involve conventional construction equipment, namely trucks, auguring equipment, wire reel vehicles, tensioning equipment, etc. The gasoline and lubricants for the equipment are the only materials that pose a potential for environmental impact and only if inadvertently spilled/released. Refueling will be restricted to areas off the right-of-way.

MECo employs construction supervisors to oversee such work. Part of their duties will be to monitor equipment performance, to assure no spills or leaks on the right-of-way. The construction supervisor will have a spill response kit in his truck at all times.

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Information Request DTE-30

Request:

Are there indications of any hazardous wastes along the proposed route?

Response:

There are no indications of hazardous waste along the proposed route. The route has been reconnoitered several times by Project staff and contractors.

Prepared by or under the supervision of: F. Paul Richards

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Information Request DTE-31

Request:

Please provide the total area of wetland disturbance and buffer zone disturbance from permanent structures and access roads.

Response:

Each new pole will require a temporary disturbance of approximately 100 square feet (a 10' x 10' square). Two poles will be located within wetlands accounting for approximately 200 square feet of temporary wetland alteration and about 2 square feet of permanent impact. Twenty-three poles will be located within the 100-foot buffer zone accounting for approximately 2,300 square feet of temporary disturbance and about 23 square feet of permanent impact.

MECo is not proposing to construct any new permanent access roads. The project can be constructed utilizing existing access roads along the cleared right-of-way. Temporary access to new pole locations will generally be the most direct way across the maintained right-of-way and will not necessitate new permanent access road construction.

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Information Request DTE-32

Request

Please refer to Attachment D of the Georgetown Notice of Intent. Do any of the seven species listed by NHESP occur on the right-of-way or adjacent areas that would be trimmed? Do any of these species occur outside of wetland areas? In what season can Hyla Ecological identify salamander breeding sites?

Response:

Hyla Ecological Services, Inc. (HES) investigated, in detail, the suitability of wetland and upland habitat within the right-of-way and adjacent areas during the winter of 2003 – 2004. The results of these investigations are included within the HES "Rare Species Wildlife Habitat Assessment of the Proposed Second King Street to Mill Street 23 kV Line Project" report included in the response to DTE - 22. Specifically, it was concluded that suitable nesting habitat for four-toed salamander (*Hemidactylium scutatum*) exists within or adjacent to four areas of proposed work within Massachusetts wetland resources areas. Potential blue-spotted salamander (*Ambystoma laterale*) breeding habitat and potential foraging habitat for the two rare turtle species referred to in the MNHESP letter, spotted turtle (*Clemmys guttata*) and Blanding's turtle (*Emydoidea blandingii*), also exist in the same four areas. Based on detailed habitat investigations by HES and consultation with MNHESP, it was determined that bridle shiner (*Notropis bifrenatus*), New England bluet (*Enallagma laterale*), and small bur-reed (*Sparganium natans*) are very unlikely to occur within areas of proposed work. Determination of whether any state-listed rare species actually occur within areas of proposed work would require field work during the spring or early summer.

The only potential habitat type for state-listed species identified within upland areas of proposed work is potential nesting habitat for spotted and Blanding's turtles. The most likely of these areas were mapped by HES and discussed in the aforementioned report.

Actual breeding site usage by blue-spotted or four-toed salamanders is best determined in spring. Blue-spotted salamander breeding presence can be identified through visual or minnow trap surveys for adults (late March to early April), egg mass surveys (April), or larval surveys (May – June). Evidence of four-toed salamander breeding is best sought through searches for nesting females (April to early June).

Prepared by or under the supervision of: F. Paul Richards

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Information Request DTE-33

Request:

How many poles and how many guy wire anchors are proposed for wetlands? For 100-foot buffer zones?

Response:

Only two poles will be located within an area delineated as wetland (##8 and 14). Pole #8 will require two anchors and pole 14 will not require any anchors.

A total of twenty three poles will be located within the 100-foot buffer zone of a wetland (##1, 2, 3, 4, 5, 6, 7, 9, 10, 13, 17, 18, 19, 21, 23, 24, 28, 29, 30, 31, 34, 35, and 36). A total of 16 anchors are required at 8 pole locations.

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Information Request DTE-34

Request:

Please refer to the Richards testimony at 4. Please reconcile the statement that only three poles will be located in wetlands with Attachment E of the Georgetown Notice of Intent, which appears to show that poles 2, 8, 14, 30, and 36 would be within flagged wetlands, and that poles 10, 17, 18, 29, and 35 would be at the edge of flagged wetlands.

Response:

Only two poles will be located within an area delineated as wetland (#8 and #14). The location of the wetland line relative to pole # 36 is incorrect in Attachment E of the Georgetown Notice of Intent. In order to keep within reasonable spans, it is necessary to locate some poles right at the edge of the wetlands (#2, 10, 17, 18, 29, 30, and 36). At the scale of the drawings, it may appear that some poles will be located in wetlands, but they are not. It is the intention of MECo to field spot the poles in question outside of the delineated wetlands. On February 19, 2004, representatives of the MECo will revisit the pole locations in question to clarify the discrepancies. A revised plan will be sent to the Department the week of February 23 to confirm these findings.

Massachusetts Electric Company
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Information Request DTE-35

Request:

Please describe how guy wire anchors can be installed in wetlands by a person without directly approaching the anchor location with a wheeled vehicle.

Response:

See page 3 of Attachment A.

Massachusetts Electric Company
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Information Request DTE-36

Request:

How are wooden poles treated to avoid rot? How does the treatment material affect wetland resources?

Response:

Wood poles of the class used for this 23 kV project are treated with pentachlorophenol (penta) to retard wood rot.

With the exception of one new pole location where the diesel fuel carrier leached off the pole creating a sheen, I know of no instances where penta poles have been cause for concern, be they along roadsides or in wetlands. In the one instance noted the oil was sorbed by hay mulch until the surficial leaching stopped.

In rare instances, residual oil-based carrier applied to the pole could leach into the environment and eventually decompose. However, there are literally hundreds of thousands of penta poles along cross-country rights-of-way and roadsides, including many wetlands, with no apparent environmental effects.

Massachusetts Electric Company
Docket No. D.T.E. 03-130
Responses to the Department's First Set of Information Requests

Information Request DTE-37

Request:

How will wetlands be protected from construction vehicle traffic? How much vehicle traffic is required to install protective matting?

Response:

Vehicular traffic during construction will move over swamp mats, plywood or plastic mats in wetlands areas. These protective devices are installed by hand, thus no vehicular traffic will be required. Chip bales, also installed by hand, will define the route to the locations requiring protection.

Massachusetts Electric Company
Docket No. D.T.E. 03-130
Responses to the Department's First Set of Information Requests

Information Request DTE-38

Request:

Is part of the Supply Line within the Crane Pond Wildlife Management Area, as suggested by Figure 1 of the Georgetown Notice of Intent? If so, what requirements are triggered by the new Supply Line crossing through the Crane Pond Wildlife Management Area?

Response:

MECo has an easement through a portion of the Crane Pond Wildlife Management Area and the new Supply Line will be installed on that easement. There are no special requirements triggered by this Project under the terms of the easement.

Massachusetts Electric Company
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Responses to the Department's First Set of Information Requests

Information Request DTE-39

Request:

Is any part of this Project subject to review under the Massachusetts Environmental Policy Act? If so, please provide, as available:

- a. a copy of the Environmental Notification Form ("ENF") or other notification.
- b. a copy of the Draft Environmental Impact Statement ("DEIR") (if applicable).
- c. comments submitted to the ENF and the DEIR (if applicable).
- d. the Secretary's certificate(s) on the ENF and DEIR (if applicable).

Response:

MECo decided to prepare an Environmental Notification Form (ENF) for the project even though it could not be ascertained with certainty during November-December, 2003 whether the proposed project would actually involve a "take" and therefore necessitate a permit from Natural Heritage.

Since MECo's goal was to have the line in service by June 1, 2004 and since it had not received a response from Heritage regarding species in the local "priority/estimated habitat" until early November, it was determined that a proactive approach was needed. Therefore, the firm of Hyla Ecological Services was engaged to map "potential" rare species habitat. Using the ENF and personal contact, MECo and Hyla were then able to engage Natural Heritage staff with meaningful data from which a protection and mitigation plan was developed and agreed to by Natural Heritage.

- a) A copy of the ENF is labeled DTE-39, Attachment A.
- b) The project was not scoped for a DEIR.
- c) Comments submitted to MEPA and Bill Gage, Analyst, are labeled DTE-39, Attachments B through F.
- d) The Secretary's Certificate is enclosed as DTE-39, Attachment G

Prepared by or under the supervision of: F. Paul Richards

Massachusetts Electric Company
Docket No. D.T.E. 03-130
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Information Request DTE-40

Request:

Please list the local state, and federal approvals that the Supply Line will require and indicate the status of each approval.

Response:

Local

- 1) Order of Conditions, Groveland Conservation Commission (OOC is being processed by the Groveland Conservation Commission.)
- 2) Order of Conditions, Georgetown Conservation Commission (Hearings has been continued; site walk scheduled.)
- 3) Permits (2) for street crossings, Groveland Board of Selectmen (Petition is to be filed week of February 23, 2004.)
- 4) Permit (1) for street crossing, Georgetown Board of Selectmen (Petition is to be filed week of February 23, 2004.)

State

- 1) Massachusetts Environmental Policy Act, Environmental Notification Form, (Certificate has been issued.)
- 2) Massachusetts Department of Telecommunications & Energy, Ch. 164, Sec. 72 approval (Petition is pending.)

Federal

- 1) No federal permits are required for this project.

Prepared by or under the supervision of: F. Paul Richards

Massachusetts Electric Company
Docket No. D.T.E. 03-130
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Information Request DTE-41

Request:

Does the Company expect that the proposed construction would affect groundwater or wells? Please discuss. How will the Company ensure that contaminants are not released into the groundwater during construction of the proposed line?

Response:

It is not anticipated that the project will affect groundwater or wells.

According to MassGIS (May 2003), there are no groundwater supply wells, closed wells, proposed wells or historic wells in the vicinity of the proposed project right-of-way. Likewise, there are no DEP-approved Zone II Protection Areas closer than about 500 feet to the King Street Substation, the closest being on the opposite side of Route 97. MECo has no data on private wells within the Project area.

The regional influence on groundwater water quality from area residences, roadways, and businesses far outweigh the few wood poles being proposed.

MECo will refuel vehicles at designated permitted refueling stations and will not bring poles to the construction area until needed for installation. The construction supervisor will have a spill response kit in this truck at all times.

Massachusetts Electric Company
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Information Request DTE-42

Request:

Please refer to pages 5-2 and 5-3 of the Amended Petition. Please discuss whether the Company will need to use or remove water during construction. If so, please quantify the amount of water used or removed, and discuss where the water will be obtained and discharged.

Response:

Request withdrawn.

Prepared by or under the supervision of: Paige Graening, Esquire

Massachusetts Electric Company
Docket No. D.T.E. 03-130
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Information Request DTE-43

Request:

Please discuss means by which the Company would control and/or clean stormwater during construction.

Response:

Stormwater Management is addressed in WPA Appendix B of the Notices of Intent. Please refer to FPR Exhibits 1 and 2. MECo will abide by the Order of Conditions attendant to the Groveland and Georgetown Conservation Commission filings.

Since the earth disturbance for the Project will take such a short period of time (about one hour in soils and 3-4 hours in rock) and the amount of dirt displaced will be so small (approximately 6 cubic feet per pole) erosion control will consist of spreading the excess dirt around the pole foundation and covering the exposed soil with haybale mulch.

Additionally, for access purposes, in soft soils MECo will use either plywood sheets or hard plastic mats designed to prevent rutting and erosion. As an example, swamp mats designed to minimize rutting and erosion, will be used at the pole #14 location due to permanent standing water.

When the project is completed Massachusetts Electric will have consultants from Earth Tech and Hyla Ecological Services walk the right-of-way with the Project Engineer to assure that habitats are restored and there is no potential for chronic erosion attributable to the project.

Massachusetts Electric Company
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Information Request DTE-44

Request:

Please state the vehicular access points that would be used to install poles, and list the poles that would be reached from each vehicular access point.

Response:

MECo proposes to utilize six existing access points to the right-of-way (the driveway to the King Street # 18 Substation, King Street, a gated access off Rocky Woods Road, Evergreen Lane, Pond Street, and a gated access off Mill Street). See Exhibit PEB-3, attached to the testimony of Paul E. Burgess, P.E.. Pole #1 is inside the substation and #2 will be accessed from the King Street #18 Substation. Poles ## 3, 4 (east), and 5 (west) will be accessed from a gated road adjacent to the substation. Poles ## 6, 7, 8, and 9 will be accessed from the gated access off Rocky Woods Road. Poles ## 10, 11 (east), 12, 13, and 14 (west) will be accessed from Evergreen Lane. Poles ## 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, (east), 31, 32, 33, and 34 (west) will be accessed from Pond Street. Poles ##35 and 36 will be accessed from the gated access from Mill Street.

Prepared by or under the supervision of: Paul E. Burgess, P.E.

Massachusetts Electric Company
Docket No. D.T.E. 03-130
Responses to the Department's First Set of Information Requests

Information Request DTE-45

Request:

Will clearing of right-of-way or installation of access roads for the new Supply Line enable or increase the extent of unauthorized use of the project ROWs?

Response:

No. The right-of-way has already been cleared to its full width. However, select "danger trees" will be felled to minimize the chance that a tree will fall into the wires during a wind storm or icing event. That amount of selective tree removal and side trimming along 1.6 miles of right-of-way should not way enable or increase the extent of unauthorized use of the right-of-way. Note, however, that the right-of-way is easement property, controlled to a great extent by others.

Similarly, the access road is already in place and there are no plans to extend it. Access to new pole locations will be across existing vegetation so there is no need for new gravel roads. The vegetation will restore itself in one or two growing seasons, depending upon when the actual construction is done.

Massachusetts Electric Company
Docket No. D.T.E. 03-130
Responses to the Department's First Set of Information Requests

Information Request DTE-46

Request:

Would the Company alter or expand the use of herbicides along the ROWs when the additional line is added?

Response:

No. At present, the right-of-way is effectively cleared to its full width. Herbicide usage is expected to follow existing patterns for this right-of-way. The use of herbicides will not increase or decrease unless dictated by vegetation response to the existing vegetation management program. The right-of-way is on a five-year cycle of vegetative maintenance. The long-term goal is to maintain a scrub-shrub community that does not infringe on the wires clearance zone.

The Company notices the usage of herbicides in all affected communities through both its Five Year Vegetation Management Plan and its Yearly Operating Plan. Under a dual Memorandum of Understanding between the Department of Environmental Protection (DEP) and the Department of Food and Agriculture (DFA), the Company abides by the prescribed procedures relative to licensed applicators and the application procedures for approved herbicides. DFA is the ultimate regulator of herbicide usage (*See* 333 CMR 11.00).

Prepared by or under the supervision of: F. Paul Richards